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Delay of shuttles may hurt spy work

By Fred Kaplan
Globe Staff

WASHINGTON – Delays in future space shuttle missions, caused by the disastrous explosion of the Challenger this week, could leave the United States with no spy satellites able to take photographs over Soviet territory that are useful to the military, according to intelligence sources.

There is general agreement that the impact will not be so serious if the cause of Tuesday's accident is found and fixed fairly quickly, so that the next mission can be launched sometime this year.

However, if the delays persist through 1987, US intelligence agencies could be left with a serious shortcoming in their ability to monitor military activities of the USSR and other countries.

NASA officials say they do not yet know how long they will have to wait before they can launch the next shuttle into space.

There could also be setbacks in the Reagan administration's Strategic Defense Initiative, but military analysts say those delays will be minor compared with the possible gap in spy-satellite coverage.

The intelligence shortfall concerns the CIA's top-secret KH-12 reconnaissance satellite, which was scheduled to be lofted into space onboard a shuttle this September. The KH-12 is an updated version of the KH-11. Both satellites can take pictures over the Soviet Union with astonishing resolution, and can transmit digitally encoded signals of those photos to receiving stations on earth within seconds.

The CIA has traditionally kept two of those satellites in orbit at all times. However, there is now only one. Last August, the most recently built KH-11 was launched from Vandenberg Air Force Base in California onboard a Titan rocket, but the Titan and its cargo went into the Pacific Ocean.

The downed KH-11 was to have replaced one that had just been retired.

According to Jeffrey Richelson, a professor at American University and author of "The US Intelligence Community," the KH-11 now in space was launched in December 1984. An intelligence official says it will probably expire in early 1987.

That KH-11 is the only US satellite able to take photos with sufficient clarity to make them useful for military-intelligence purposes. Richelson said the camera on the KH-11 probably has a resolution of about six inches, meaning that it can distinguish between two objects six inches apart.

The new KH-12 is too heavy to be launched in the next couple of years by anything but the space shuttle. Thus, a serious delay in the next shuttle missions could force the United States to continue for many more months with only one KH-type satellite, or perhaps for a short time with no such satellites at all.

The Air Force once had KH-8 and KH-9 satellites in orbit, which were similar to the more modern KH-11 and KH-12. However, according to analysts in the intelligence community, they were retired some time ago.

The Air Force, NASA and the CIA officially had no comment, since all information about spy satellites, aside from the fact that they exist, is classified.

Even without the KH-11 and KH-12, the United States would still be able to intercept electronic and communications signals transmitted by the USSR, and it could take pictures with much less detail. However, analysts say the absence of sharp visual data could increase uncertainties in estimates of what the Soviets are up to and whether they are complying fully with arms control treaties. Delays in the shuttle will also cause scheduling problems – but probably little more than that – with the Strategic Defense Initiative, also known as the "star wars" space-based missile-defense program.

In June or July this year, the shuttle was to have put into orbit a satellite called Teal Ruby, which is designed to track from outer space the flight paths of strategic bombers. Like the KH-12, it can be carried into space only by the shuttle.

However, said John Pike of the Federation of American Scientists, a critic of the SDI program, "Teal Ruby's already been delayed by two or three years, so delaying it some more isn't going to hurt anything."

Paul Stares, a space-weapons analyst at the Brookings Institution, said the next several shuttle missions will probably involve smaller-scale SDI experiments as well, which tend not to be announced ahead of time. Last year, for example, a laser beam in Hawaii was bounced off a mirror placed on the surface of a shuttle orbiter as it traveled through space.

Stares said an infrared (heat-seeking) telescope, which has SDI applications, was also scheduled to be lofted into orbit by a shuttle this year.

There are other military satellites, having nothing to do with SDI, that NASA was planning to carry into space onboard the shuttle this year. Those include two DSCS 3 communications satellites, which provide links allowing the president to speak to field commanders in wartime; two NavStar satellites, designed to improve the accuracy of weapons ranging from ballistic missiles to artillery shells; and two British Skynet communications satellites.